CLAIMS

I Claim:

1. An object based workflow route; a first workflow system with a first route, a connected sequence of steps of a first type; a second workflow system with a second route, a connected sequence of steps of a second type;
   wherein each step of the first type in the first route has a corresponding object encapsulating a route segment of steps of the second type and
   the second route is an object based workflow route comprised of a connected sequence of objects corresponding to the connected steps of the first type in the first route and the route segments within the objects connected in correspondence with the connection of the objects.
2. The object based workflow route of claim 1 wherein the first workflow system is an ERP system, the first route is an ERP route, the step of the first type is an ERP step, the second workflow system is a shop floor system, the second route is a shop floor workflow route, and the step of the second type is a shop floor step.
3. The object based workflow route of claim 1 wherein the encapsulated route segment has a feedback input link for connection to another route segment.
4. The object based workflow route of claim 1 wherein the encapsulated route segment has a feedback output link for connection to another route segment.
5. The object based workflow route of claim 1 wherein the encapsulated route segment has a normal input link for connection to another route segment.
6. The object based workflow route of claim 1 wherein the encapsulated route segment has a normal output link for connection to another route segment.
7. The object based workflow route of claim 1 wherein a step of the second type is adapted to report to the first workflow system that an item has moved into the object corresponding to a step of the first type.
8. The object based workflow route of claim 1 wherein a step of the second type is adapted to report to the first workflow system that an item has moved out of the object corresponding to a step of the first type.

9. The object based workflow route of claim 1 wherein a step of the second type is adapted to report to the first workflow system the bar code or other identifier of an item that has moved out of the object corresponding to a step of the first type.
10. The object based workflow route of claim 1 wherein a step of the second type is adapted to report to the first workflow system the bar code or other identifier of an item that has moved into the object corresponding to a step of the first type.
11. The object based workflow route of claim 1 wherein a step of the second type is adapted to report to the first workflow system the quantity of items in the object corresponding to a step of the first type.
12. The object based workflow route of claim 1 wherein a step of the second type is adapted to report to the first workflow system the quantity of items in the object corresponding to a step of the first type by balancing the number of items that enter from feedback input links with items that exit normal output links.
13. A work center object, a work center program and a shop floor workflow system connected by a network wherein the work center program is adapted to accept and execute a function process step from the shop floor workflow system that is adapted to use the route encapsulated in the work center object to provide the sequence of work center function process steps. .
14. The work center object of claim 13 wherein the work center object is associated with a shop floor step.
15. The work center object of claim 13 wherein the work center function can be modified by changing the work center object associated with the work center..
16. A connection process, a first workflow system with a first route, a connected sequence of steps of a first type; a second workflow system with a second route, a connected sequence of steps of a second type;
wherein each step of the first type in the first route has a corresponding object encapsulating a route segment of steps of the second type,
and for each step of the first type in the connected sequence of steps of the first type that form the first route, the connection process connects the associated object to a connected sequence of objects by connecting the input and output links of the encapsulated route segments to form a second route with a connected sequence of

objects that is a parallel to the connected sequence of steps of the first type of the first route..

17. The connection process of claim 16 wherein the first workflow system is an ERP system, the first route is an ERP route, the step of the first type is an ERP step, the second workflow system is a shop floor system, the second route is a shop floor workflow route, and the step of the second type is a shop floor step..
18. The connection process of claim 16 wherein the route segment has normal input and output links to connect to other route segments.
19. The connection process of claim 16 wherein the route segment has feedback input and output links to connect to other route segments.
20. The connection process of claim 16 wherein a step of the second type is adapted to report to the first workflow system when an item has moved into the object corresponding to a step of the first type.